

SUPPLEMENT.

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2502.—Vol. LIII.

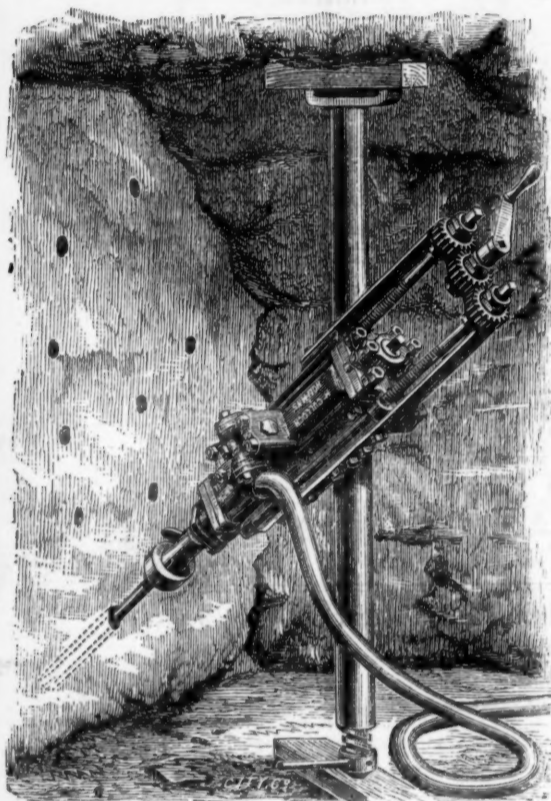
LONDON, SATURDAY, AUGUST 4, 1883.

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—Highest Award for Effectiveness in Boring, and Economy in
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JUBILEE EXHIBITION, 1882.
THE PATENT

"CORNISH" ROCK DRILL.



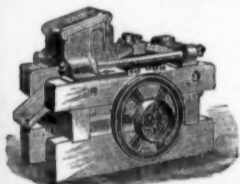
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GREATER DURABILITY AND LESS LIABILITY TO DIS-
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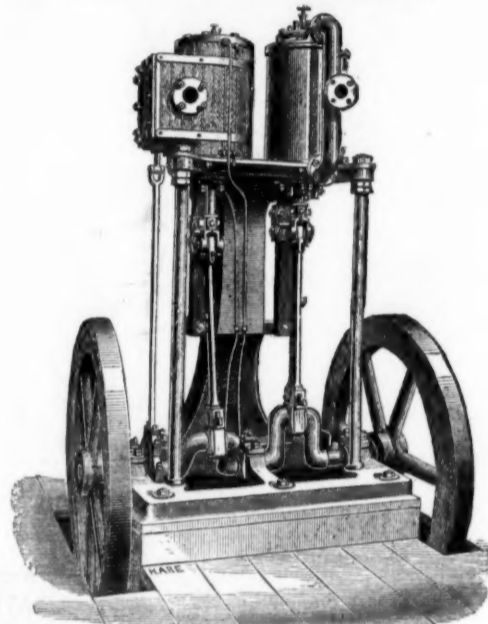
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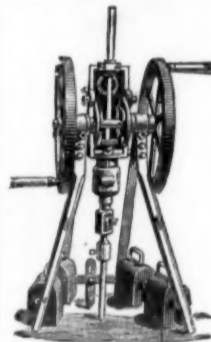
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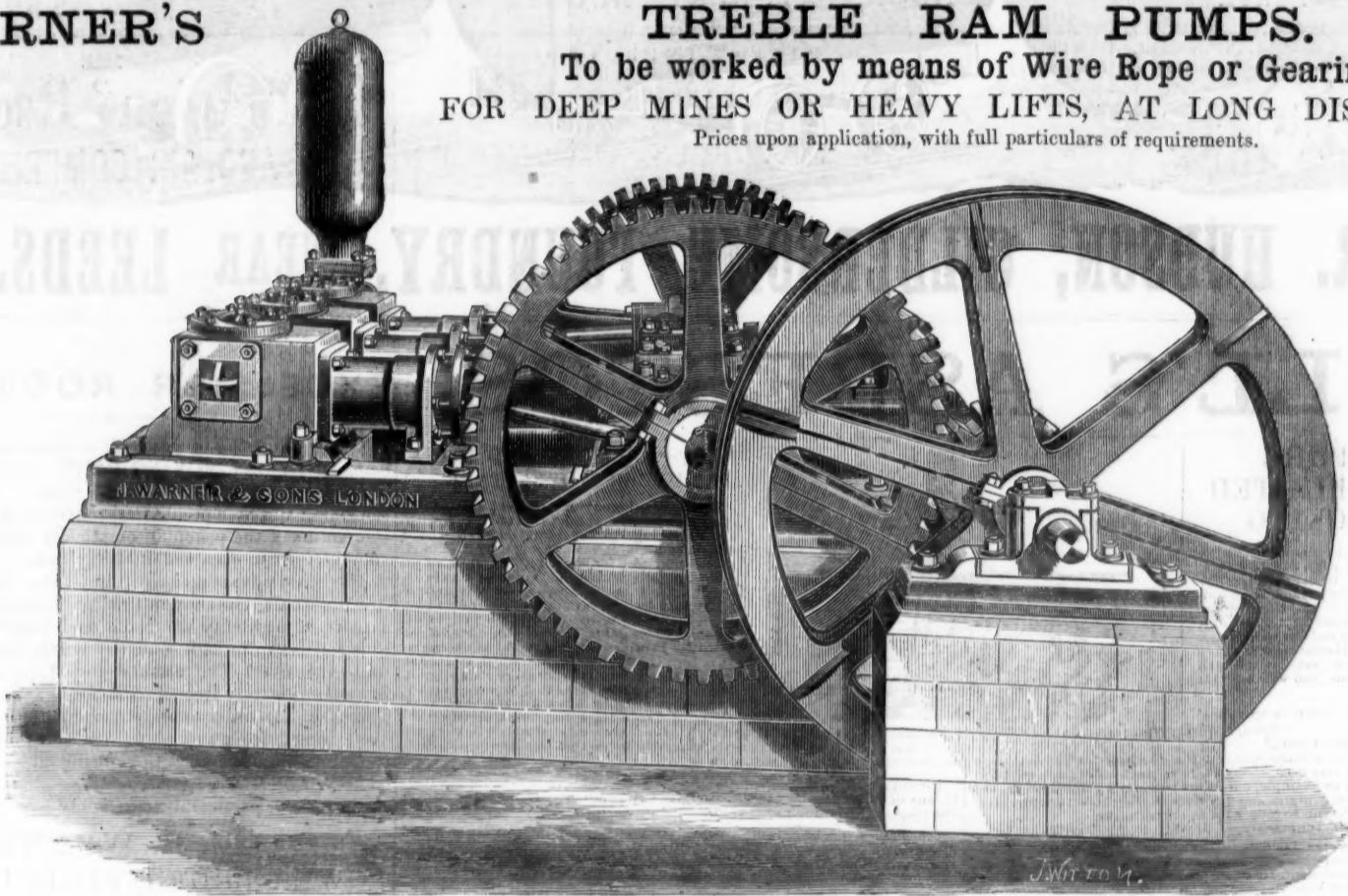
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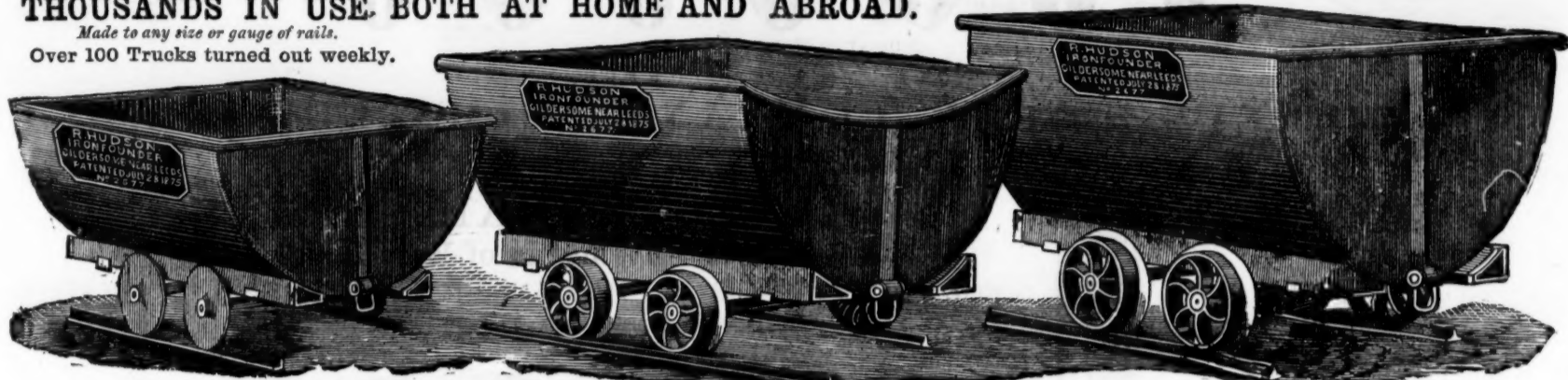
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The following Testimonials refers to this Packing:

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I am, Sir, yours truly, J. ASHCROFT, Chief Engineer.

Mr. John Bell, Asbestos Works, London. Portsmouth, February 20, 1883.

SIR,—Your Asbestos Steam Packing that you have been supplying for some considerable time I can recommend to steam users generally as being the very best that was ever introduced into the market for piston glands, slide throttle and throttle valve glands. I can after considerable experience say that it is the very best that I have ever used. We run our engine at between 80 and 90 revolutions per minute, and I may add that there is no work more trying than saw mill work.

Yours truly, WM. HATCHER, Engineer at Bailey's Steam Saw Mills, Portsmouth.

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For Hot Water and Steam Pipes, to Prevent Radiation and Ensure Transmission of Heat; also to Protect from Frost.

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For Coating the Boilers of every kind of Marine and Stationary Engine. It is non-combustible, and can be easily and quickly applied at any time whether steam is up or not. It adheres to iron and metals and preserves them from rust.

The Maxim Weston Electric Company (Limited), 29, Bankside, London, S.E., 4th January, 1883.

Mr. John Bell, 118, Southwark Street, S.E.

DEAR SIR,—In answer to your request, I beg to inform you that I find the thermometer placed 3 feet above the boilers now stands at 93°; before your covering was put on it used to stand at 126°. With regard to the saving in fuel I am unable to speak very accurately, as the boilers were not working long enough before being covered to ascertain the amount of fuel that would be consumed in an ordinary run; but I feel quite justified in saying that we burn less by about 5 cwt. per night than we were doing, and I shall be glad at any time to show the boilers to any one who may wish to see them, as I consider yours the best covering that I have up to the present seen.

Yours faithfully, (Signed) J. H. CUNDALL, Works Manager.

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Globe Tube Works, WEDNESBURY,

AND 3, QUEEN STREET PLACE, CANNON STREET, LONDON, E.C.

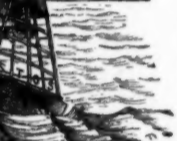
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It has been found very efficient for making bilge-pipe joints. It can be bent by hand, without puckering, to the form required, and is especially useful in making manhole and mud-hole doors; also for large "still" joints where boiling fat and acids of a kind have to be resisted. For these latter purpose it is kept in rolls of 100 feet, in various widths from 1 inch to 2 1/2 inches wide, by 1/4 inch to 3/4 inch thick. Manhole cover joints made of this material can be lifted 20 times before renewal is necessary. This Tape is also made in any width and thickness, so that it is suitable for every class of joint. It is also made in sheets about 40 inches square, from 1/4 inch thick upwards, and each sheet bears my Trade Mark to protect users against imitations. Every 10 feet length of the tape has a label attached bearing my Trade Mark, and users are earnestly requested to see that this label is attached, to prevent imposition by worthless imitations.



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The engineer of a world-renowned firm writes:—"There is not, nor can there be, any doubt as to the excellence of your Asbestos and India-rubber Woven Sheetings—as a jointing material it is unrivalled."

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BELL'S ASBESTOS YARN AND SOAP-STONE PACKING,

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The following Testimonial refers to this packing:—
Festiniog Railway, Locomotive Superintendent's Office, Portmadoc, Jan. 13th, 1883.

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DEAR SIR,—I have much pleasure in saying that the Asbestos Yarn and Soap-stone Packing gives every satisfaction; indeed, better than we expected. We have a locomotive packed with it, and has been running five months (and think of the piston speed with our small wheels). I think the Soapstone a great improvement, as it keeps the packing elastic, and prevents it getting hard. I am very pleased with its working, and also the very low price for such good lasting packing. The Asbestos Yarn we find is very useful, and answers admirably.

(Signed) Yours truly, W. WILLIAMS.

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John Bell, Esq.

SIR,—I have great pleasure in reporting on your Asbestos Cloth Rope Packing which you sent me on trial. I tried it in one of two H.P. Piston Rods, and it ran 90 days without repacking. The other H.P. Piston Rod was packed with a similar form of packing, not composed of Asbestos, and was repacked 10 times during the 90 days. I have recommended it both at Sydney and Melbourne, and shall do my best to take this packing in whatever steamers I may have to do with.

I remain, Sir, yours truly, W. W. PROPHET, Chief Engineer S.S. "NORFOLK."

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For Dry Steam Joints, Electric Dynamo Machines, &c.; made in sheets measuring about 40 inches square, from 1/4th inch to 1 inch, and 1/2 millimetre to 25 millimetres thick. Each sheet bears my Trade Mark, without which none is genuine.

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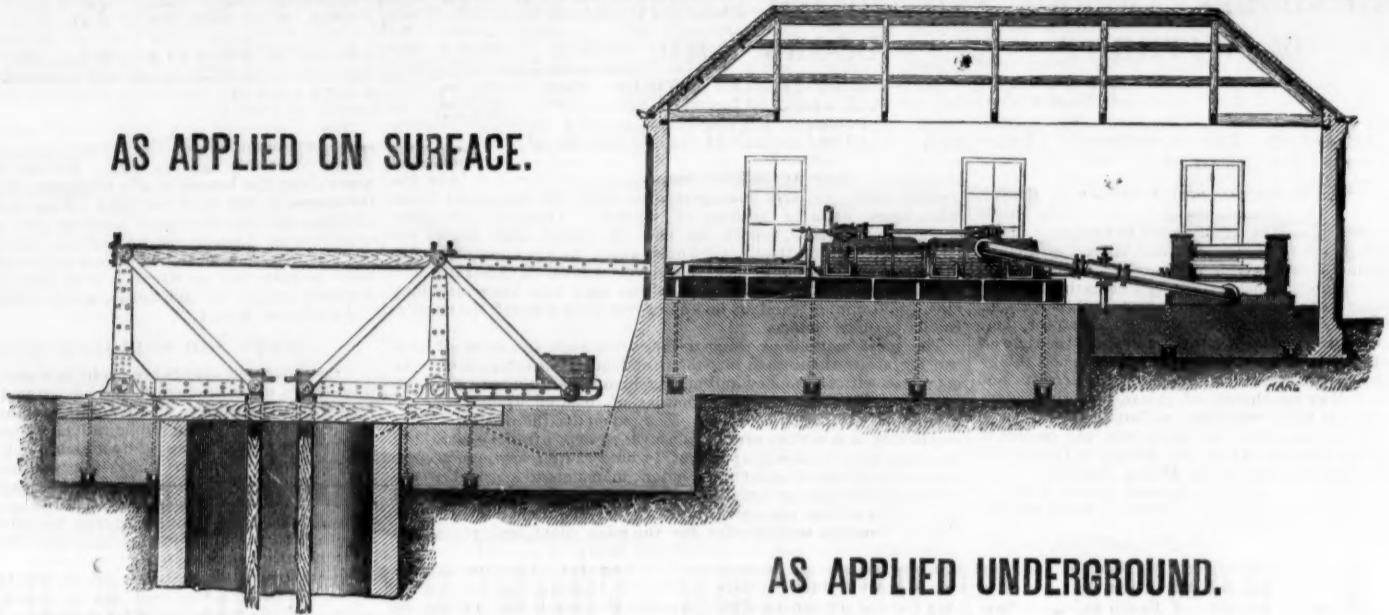
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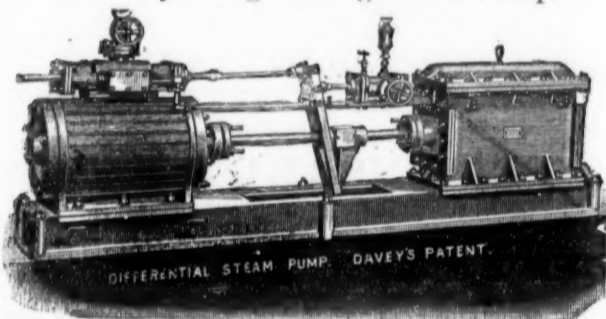
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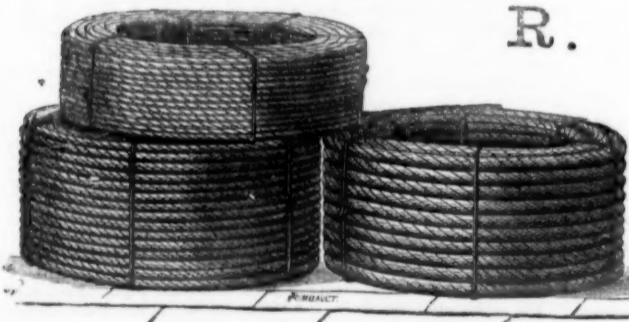
The only Self-governing Steam Pump.



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Diameter of Steam Cylinder, Inches.	Diameter of Water Cylinder, Inches.	Length of stroke, Inches.	Gallons per Hour.	Height to which water can be raised with 40 lbs. steam pressure, Feet.	PRICE.	Price with Condenser, in Suction Pipe.	Price with Air Pump Condenser.	Diameter of Suction and Delivery Pipes, Inches.	Diam. of Steam Pipe, Inches.	Diameter of Exhaust Pipe, Inches.
10	5	15	5,200	250	65	72	85	5 1/2	1 1/2	2 1/2
10	7	15	10,400	130	70	80	100	6	1 1/2	2 1/2
10	9	15	17,300	70	85	100	120	4 1/2	1 1/2	2 1/2
12	6	24	6,500	250	90	104	130	5 1/2	2	2 1/2
12	7	24	10,500	180	96	110	136	6	2	2 1/2
12	8	24	13,500	140	100	114	142	7	2	2 1/2
12	10	24	21,300	90	120	136	175	5 1/2	2 1/2	3
14	7	24	10,400	250	110	130	156	6	2 1/2	3
14	8	24	13,500	190	120	145	165	6 1/2	2 1/2	3
14	9	24	17,300	150	130	150	172	6 1/2	2 1/2	3
14	10	24	21,300	120	140	162	190	7 1/2	2 1/2	3
14	12	24	30,800	80	160	190	216	9	2 1/2	3 1/2
16	8	24	13,700	250	140	170	195	6 1/2	3	3 1/2
16	9	24	17,300	200	150	180	215	6 1/2	3	3 1/2
16	10	24	21,300	160	160	196	225	7 1/2	3	3 1/2
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Special Rock Drill Steel.

Mining Tools, Files, Saws, Hammers, and Picks.

CANNON STEEL WORKS, SHEFFIELD.

Original Correspondence.

THE CARBONA.

SIR.—That much uncertainty has surrounded this term, applied, as you are well aware, to the large deposits of black tin, which were formerly worked to great profit in St. Ives Consols Mine, is proved by the following remarks of the late Mr. Henry Curwen Salmon:—"There has been some discussion respecting the etymology of this word, which antiquarians of the old Celtic school have pretended to identify with an ancient Cornish word. There seems, however, no ground for this, and the word is probably an unaccountable corruption of some slang mining phrase."

My desire to render the book "British Mining," on which I am engaged, as complete as possible, I have been led to make investigations into many out of the way sources of information. I have certainly discovered the origin and the meaning of the mining term carbona. I find in the New Testament published at the English College at Rheims, A.D. 1582, in St. Matthew's Gospel, chapter xxvii., verse 6, the following:—"Principes, autem sacerdotum, acceptis argenteis dixerunt: Non licet eis mittere in 'carbana.'" This in English becomes—"But the chief priests having taken the pieces of silver said: It is not lawful to put them into the carbona," &c.

Submitting this to a friend, who is an excellent classical scholar, he replied, "The carbona was a place in the Temple where the people put in their gifts or offerings. The term seems to be a well-known one by miners in this parish (Sithney) also, and is used by them to denote a piece of ground unusually rich in mineral. 'What sort of a lode is a', Bill?' 'Haur! a beauty—a regular carbona.'" Referring to the Greek text, I find the miners ought to call it carbana, not carbona. The word is not Greek, but Syro-Chaldaic, or, more correctly, Aramaic, the language spoken by the Jews in the time of our Lord, and it certainly means a place very rich in good things, for it signifies the spot in the Temple where all the rich gifts and offerings were placed. May not the use of this term in the county be a part of the proof that there were Jews in Cornwall.

Believing this will be interesting to many who are curious to enquire into the remarkable history of tin mining in Cornwall, I venture to ask you to give it a place in the *Mining Journal*.

St. Ives, July 31.

ROBERT HUNT, F.R.S.
Keeper of Mining Records.

INNOCUOUS WHITE LEAD MANUFACTURE.

SIR.—I have read at various times comments upon the then contemplated steps in legislation connected with white lead factories, and recommended by the Chief Inspector of Factories, which have been debated in the House of Lords, and the Bill recently passed that House. No legislation can, however, clear the atmosphere of a white lead factory of the dust which is produced in the process of manufacture on the "stack" system. The attempt to neutralise the poisonous effects of breathing this dust by the use of medicinal drinks and frequent ablutions is very much like a person first of all drinking polluted water, and then dosing himself to check the attendant evil consequences. Mr. Redgrave himself confesses so much, and says it can only "mitigate the evil."

I have perfected a process of making white lead by which all washing, drying, and ovening can be dispensed with, and by which the handling of the white lead and all dust, with the concomitant evils, are avoided. The use of female labour is quite unnecessary, and the need of manual labour is reduced to a minimum, so that this may be called truly harmless. It is also much cheaper than the old "stack" process, and the whole operation is a remarkable illustration of the marvellous results of electrical energy as applied to this manufacture. The need of legally enforced regulations for the safety of operatives in white lead factories becomes in the presence of such a plan of manufacture quite unnecessary. I have just completed a factory for working this plan on a commercial scale, so that it has not yet been brought under official notice. I have upon several occasions carried out an operation upon a batch of half a ton of blue lead at one time, with the most unvarying and perfect success, and with very imperfect appliances. Had I been able to have much earlier brought this to the attention of the proper officials then I believe that the form of legislation must have taken a very different shape. I forward you a pamphlet which has been written by a gentleman largely interested in labour, and who has thoroughly investigated this electrical process of making white lead while it has been in active operation.

EDW. V. GARDNER, F.R.S. M.S.A.,
Director of Science Department, late Royal Polytechnic.
Berners-street, July 27.

THE GOLD FIELDS OF THE SOUTH-EASTERN STATES OF AMERICA.

SIR.—In a recent letter I mentioned that at the Silver Valley Mines, about 13 miles from here, they were sinking a new shaft with a view of cutting the lode by a perpendicular lift. I am glad to say this has been accomplished at a depth of 135 ft., which is rather sooner than I expected; but the lode is of rather curious, although strong, development, sometimes the dip being 45°, and then running horizontally for perhaps 20 ft., then dipping again. The new shaft is calculated to aid the working very much, and I hope will stimulate many other works in the district. A few days since I went to the copper mines at Conrad Hill, about nine miles from here. I had a very cordial reception from the manager, Mr. Clayton, who very kindly offered me every facility for trying one of my amalgamators alongside of the copper plates they use to save the free gold from their ores. The arrangement will be five heads of stamps supplying my amalgamator and 15 heads supplying three sets of plates, all being fed from the same ore.

The geological formation here is very curious; at or near the surface are three lodes running to the east of south and to the west of south. These are intersected by three others running due north and south, and these are again intersected at a depth of a little over 300 ft. by a strong lode of copper running due east and west. On the occasion of my visit the ore from this cross lode was being worked. In the mill-house all the visible copper is broken out, and the refuse is put under the stamps and passed over the copper plates to save the gold. I saw a pan full of this refuse tried for gold, and the yield of the precious metal was really astonishingly pure and bright, considering the matrix and the large proportion of copper in the lode.

It is impossible for anyone interested in these operations to visit this mine and works without expressing the greatest gratification at the admirable arrangement for carrying out every process to the finished metal—all works as if by clockwork. Every 12 hours samples of the ore are taken for assay, and the same with the tailings, and the results are compared with the yield of gold from the plates and in the mortars; altogether every operation is carried out in as nearly perfect a manner as possible.

From all I can learn the great want of this district is a well-arranged smelting-house, where the various ores of copper, lead, blende, and silver could be treated and made marketable, for very few mines are in the position of Conrad Hill, and able to do these things on the spot. I believe the establishment of such works in a central position would aid very much the development of mining for the baser metal in this district. It is a subject well worthy the attention of capitalists in England or elsewhere. I subjoin a cutting from a Virginian newspaper for a few months back, which gives a glowing report of gold in that State; the Pilot Mountain is visible from my window.

THE VIRGINIA GOLD REGIONS.—Recent investigation has demonstrated conclusively that Virginia is exceedingly rich in gold between the Alleghany and Blue Ridge ranges of mountains, and more especially where these ranges meet in the counties of Floyd and Montgomery. The gold area there covers 38 square miles. Prof. Fontaine, of the University of Virginia, who has examined this region, states that there is a better prospect of finding gold in large quantities there than in California in early days. Parties are now washing out from \$13 to \$30 a day; and Fontaine says that all the washings come from Pilot Mountain, which he believes is full of gold, which can be obtained by capital and the proper machinery to crush

the quartz. In Buckingham County there is a gold mine owned by a Northern company, which is valued at \$2,000,000. Virginia bids fair to become a "Golden State," as well as California.

HENRY MOON, M.E.,
Leicester, England.
Thomasville, Davidson County, North Carolina, U.S.A., July 17.
P.S.—Conrad Hill is owned and worked by a Baltimore company.

THE GOLD COAST OF AFRICA.

SIR.—Having read several articles lately in the *Journal* bearing upon the gold mining industry on the Gold Coast of Africa, and having lately returned from that delightful country, I feel special interest in the facts and fiction circulated in connection therewith. Feeling how necessary it is that some of the strangely exaggerated statements should be corrected, I beg to hand you a few facts. While on the diggings in the Transvaal I read Commander Cameron's report—a tissue of exaggerations and falsehoods. I hurried to this country in order to get to the West Coast; there I was employed as miner by the manager of the African Gold Coast Mining Company. For a clerk of a palm oil factory to be manager of a gold mine at 1200*l.* per annum, to me, a miner of 13 years' experience, having worked on all the popular diggings known during that time, both alluvial and quartz, did seem a curious anomaly at first; but instead of being an isolated instance I soon found it was the general thing to have managers over mines on the West Coast who knew little or nothing of mining. There is the great commander himself, spent no end of money and knows no more about mining than a pig knows about its grandmother. One manager, recently gone back there, well known in Australia as a card-sharper, said he did not want any men who knew anything about gold mining; and, as he knows very little himself, the capitalists have a nice chance.

The most marvellous thing to me is how such incompetent men can ingratiate themselves into the confidence of directors so as to be entrusted with the money and management of an industry of which they know absolutely nothing, neither of opening ground, nor assaying, nor erecting machinery. They squander the property of the companies, and seldom exert themselves to look after the work, but they look after themselves; in fact, I would caution any man accepting an appointment under these patent managers to look well to the conditions of their agreement, for I was stinted of proper food, and had to buy of the manager's servants. If the African West Coast Mining Company were to offer me the mine, plant, and provisions, compelling me to work it, I would not accept it as a gift, for it is in my opinion simply worked out by the natives. The same may be said of most of them. There is gold, but like the great commander they blow about ounces of gold, whereas they are dealing with grains all the time. From 10 grs. to 4 dwts. is nearer the mark, very little food, and plenty of insects and malaria—the true characteristics of the Gold Coast.

SAMUEL JOHNSON.

MINING IN THE UNITED STATES OF COLOMBIA, LATE NEW GRANADA.

SIR.—Several of my friends who are shareholders in the Organos Gold Company, as well as some others who take a great interest in the United States of Colombia, have lately brought under my notice certain circulars and reports from parties professing to guide shareholders and investors with reference to the company's property. From my long experience of mining in that country, extending over some 25 years, I venture to assert that those issuing adverse reports respecting the Organos, cannot know anything about the merits of the mines. It is, therefore, quite evident to me and many others that the main object of such reports is to induce shareholders to part with their interest to cover "bear" transactions.

Knowing well as I do that this mine is situated in a very rich tract of country for gold, I feel fully convinced that very large profits will result from working it. I have had many opportunities of judging as to the richness of the property, and many others in its neighbourhood, having had the most complete information from engineers and others in high authority in that country. All of these agree that Colombia is the richest country in the world for gold, silver, and other metals. All the mines are doing well, while most of them are immensely profitable. Under these circumstances, it is apparent that the adverse circulars lately issued respecting the Organos must be misleading to the shareholders and the public in general, and the former should give no heed to those trying to frighten them out of their shares, but should hold on for the handsome profits which seem certain to reward their patience and courage.—Bishopgate-street, Aug. 2.

W. B. COBB.

POTOSI GOLD COMPANY.

SIR.—During the past week we have had news of a very favourable character, so far as the cutting of fresh lodes is concerned and the probable amount they will assay from the above company. But unfortunately we have not received the results of crushings promised us at the end of May or beginning of June. Is it not time the directors gave us something better than extravagantly worded letters and telegrams, the only results of which are temporary Stock Exchange excitement and exhaustion of the company's slender resources.

According to the last balance-sheet the capital was all spent, and the company in debt to the extent of 49,931*l.*, this with the year's expenses has had to be provided for by debentures at a high rate of interest, and unless some actual returns are shortly made the venture must inevitably come to grief.

A. D. S.

Austin Friars, Aug. 2.

NOUVEAU MONDE MINING COMPANY.

SIR.—It has been pretty freely stated during the last few days that in Nouveau Monde a rise is imminent; but before acting upon such information I should be glad to obtain some reliable information. Will you, therefore, kindly insert a few queries, which I should be glad to have answered.

1. What is the capital of Nouveau Monde? 2. What property, if any, does the company own, and where is it situated? 3. Who is the Gérant, and has he any friends or relations in Venezuela? 4. Do they hold any property near the Nacupai Mine? 5. Is it true that certificates numbered up to 400,000 and also some unnumbered are in circulation? 6. Is it true that an attempt was made to raise debentures at 15 per cent. about a year since? 7. Are there any funds now in hand? 8. Have dividends ever been paid during the 30 or 40 years that the company has been in existence. And 9. The company being constituted under French laws is there any further liability, or would there be in the event of a winding-up order, and is there any immediate prospect of such a contingency?

Aug. 2.

ENQUIRER.

NOUVEAU MONDE.

SIR.—Can any readers of the *Mining Journal* give me information relative to Nouveau Monde, in which I am a shareholder. In October, 1880, nearly three years ago, a letter was published from the Gérant stating that the property purchased in Venezuela, known as the Nacupai Mines, and consisting of 10 concessions, Nos. 1 to 10, municipal lands, &c., had been duly made over to the company, and that "the titles and mode of transfer had been closely looked into by our agent with the advice of competent legal authorities, and found to be thoroughly satisfactory," and that Mr. Charles Oxland had sailed to pay the purchase-money and take possession. Nothing more was heard for more than 12 months, when a shareholder, being dissatisfied at not hearing from the mine, called a meeting, and on investigation found that not only had the property not made any returns to the shareholders, but that it had passed out of the hands of the company, with a man in possession nearly related to the Gérant, and that a sum of money (40,000*l.*) was required to get back the property. One would be inclined to think that this family had been educated in the Lesseps school.

Efforts were made to raise the required sum, but they were unsuccessful, and a syndicate was eventually formed to buy the concessions in question and bring out a new company, in which the Nouveau Monde, for some unexplained reason, was to participate in the profits

to some extent. This company, which has been registered, is shortly to be introduced to the notice of the British public, with the Lilliputian capital of 603,000*l.* I can learn nothing more except receiving indefinite tips to buy at once. I see that one of the concessions is claimed by the Chile Gold Mining Company; indeed, after prolonged litigations in the Venezuelan Courts, the Chile Gold have grasped the prize. What is left for the giant company with the little capital; can any of your readers or the officials inform me whether the Nouveau Monde have actually any property, or is the capital of the company merely invested in a name?

City, Aug. 2.

INVESTOR.

"RE ORGANOS."

SIR.—Doubtless, like many of your readers, I have been favoured with another circular with the above superscription, signed "G. W. Thomas," which supplies a lot of gratuitous information (previously known), interspersed with questionable insinuations, and finishing with the kind advice to sell out (but not "all at once" this time), with the wonderfully logical and extraordinary remark that by so doing we shall be "letting the promoters have their own stock back again."

Now, if this man be so disinterested as he makes out, why, in the name of common sense, does he not leave the mine to its merits, as he has previously had his fling. He does not state who is behind him to reap the benefit of the temporary depression in the price of the shares, or how he is recouped for the labour of drawing up the circulars and the expense of printing and postage, which must be considerable. I would ask whether the shareholders have no remedy against what appears to be libellous and persistent efforts to damage their property and to wreck a bona fide concern, which has surmounted exceptional difficulties, and is now on the eve of success.

Manchester, Aug. 1.

R. H. N.

SOUND AND WORTHLESS MINE PROJECTS.

SIR.—Loud complaints are made by many who invest their money in so-called mining schemes, and no doubt with good reason. Sound mining and deceptive schemes, called mining, are distinct things, however. The investing public fall lamentably short in discrimination on this head. Tempted by a highly-coloured prospectus, which may be framed in such a plausible manner as to conceal from all but really practical miners its flaws, they eagerly stake their capital, simply to lose it. It is quite true they consult the best authorities, as they suppose, on practical mining, but whose advice turns out to be altogether wrong; for the reason that, instead of their being the best authorities they are quite the opposite. They are the worst, not being practical miners, and hence nine-tenths of the enormous losses of honest investors, who suppose they embark their capital in sound mining, but in reality deceptive schemes. Common sense dictates the remedy. Really practical men are the men, and the only men, who understand mining—so says common sense—and they should, therefore, be consulted.—Aug. 1.

G. R.

COPPER ORE IN NORTH WALES.

SIR.—On the north-west side of the Pass of Aberglasslyn, there are some very extensive mine workings, chiefly on the Goat Hotel Estate. Several powerful lodes bearing nearly east and west, and intersected by numerous caunter lodes and branches, have been wrought by shallow levels and open cuttings for nearly a mile in length. Those mines were worked at intervals for upwards of 100 years with varying results. But as the operations were carried on entirely on the tribute system, and without capital on the part of the mineowners, the loss if any was borne by the miners, while in the successful years the mineowners frequently divided a profit of from 5000*l.* to 10,000*l.* on the year's workings, some of the ores realising so much as 20 to 22 per cent. of fine copper. The Bryn-felin part of the property was profitably worked for many years, and it is stated that several bargains could now be let on tribute at profitable rates. What they require is rock-drills to open the ore ground for new reserves, and dressing appliances to make it marketable. The Goat Hotel Company are the owners of the property, and they are making arrangements for re-opening the mines.

On the south-east side of the pass the ground rises to an altitude of about 800 ft. above the pass, and hence in the rugged steep and along the mountain ridge are numerous workings by level and open-cast, known as the Mynydd-Nantmor Mines, on the principal lodes seen in the Goat Estate, and showing similar intersections, considerable returns have been made, and arrangements are also being entered into for re-working the mines. But when the railway is made the ore can be sent down from the different levels and put into the trucks at a cost of not more than 2*d.* or 3*d.* per ton either by inclines or shoots. The property is about 500 acres in extent.

Eastward from the last-named property, where the valley bends round to an easterly direction, commences the Sygun and Cribb Ddu United Mines, containing upwards of 1000 acres, with 2½ miles of river frontage, and an altitude from the river varying from 700 to 1000 ft. on the line of the principal lodes, and commandable by adit levels. The railway station will be on the property, and the ores will be placed from the dressing-floors directly into the trucks. The River Glasslyn and tributaries afford an abundant water supply, and there is on one part of the property a large iron lode varying from 8 to 12 ft. wide, from which with a short incline thousands of tons of iron ore can be placed on trucks (when the line is ready) from 2*s.* per ton. At least 14 well-defined copper lodes have been proved rich in copper ore, and in one section of the Cribb Ddu Mine there is a bed containing 50 per cent. of sulphur and 3½ to 5 per cent. copper for 7 ft. thick. Five adit levels have been driven from the Sygun side, having a total length of about 400 fathoms. The levels have been communicated by rises and winzes, thereby securing perfect ventilation at all points, and backs are standing over the lower levels in whole ground for 120 fathoms high ready for stoping.

SYGUN MINE.—I have already stated that a very large iron lode traversed one part of the Sygun property. This lode is a true caunter, having a bearing from S.E. to N.W. magnetic, and an underlay of about 30° to the N.E., varying from 6 to 9 or 10 ft. wide, and producing on the back a large quantity of brown iron ore of low grade. But I find that on the Perthi Estate, on the N.W. side of the valley, the same great lode produces grey manganese ore in a very compact form on the footwall side of the lode, from which (the estate agent tells me) several parcels of ore was sold, some of which realised 14*l.* per ton. The leader on the footwall varies from 1 in. to 10 in. or 12 in., and the ground towards the hanging side is highly manganeseiferous for 40 ft. wide, while both to the N.W. of Perthi Mine, and S.E. of Sygun, the outcrops are impregnated with copper, indeed in Cribb Ddu (S.E. from Sygun) a very considerable quantity of copper ore was raised and sold from open casts along the back of the lode. I am therefore inclined to think that—like many of the so-called iron lodes in Devon and Cornwall—it will be found more productive of other minerals in depth and at the intersections with the east and west lodes. The principal workings of the Sygun Mine proper are 180 fathoms north-east, but as the underlay is in that direction it will be intersected in less than 150 fathoms drirage south-west, on what is known as the Gutter Goch or Red Gutter lode, by continuing the lower levels, and thereby disclosing in the same operations five or six of the intermediate lodes. I have not been able to collect reliable information as to when these mines were first commenced. Some people attribute it to the Romans, who certainly made some very good roads through this part of the country, and left other marks of their presence. But others, perhaps more correctly, consider that the Romans found the mines already opened for them, and continued the operations. The late Mr. Tregellas used to tell a humorous tale of an old Cornish miner who claimed to be descended from the tribe of "Gad"—the useful wedge—of which probably the old miner was an expert is not much known here; but Adam Jones claims to have commenced business on his own account a few centuries before Roman or even Phœnician came over. Be that as it may, some of the workings in Sygun present features of great antiquity, although the greater number are changed in appearance by the more modern miner. The galleries are numerous and of great extent, and the accumulation of halftons so large that it would astonish the uninitiated and the casual observer, who in passing by only considers the who's to be a few mere

scratches in the mountain side. This mine, like most in the district, has worked for the past three or four generations on the tribute system, and at times yielded large returns at very profitable rates; but with this great disadvantage that the miners in some years buried up richer ore ground than they could at other times find to work upon, and thus from time to time they have blocked up the most important points with debris and low grade ores. During the past 15 months we have enlarged and laid tramways in one of the principal levels, and opened several other levels, stopes, and galleries, so that 50 to 100 miners can again commence raising ores at 10s. in 11. so soon as we provide inclines and dressing-floors, and by continuing the chief levels with rock-drills into the heart of the lodes and the strength of the mountain we shall lay open a mine of great magnitude at very moderate cost. CHAS. KNEEBONE.
Better-y-Coed, Aug. 1.

MINING QUIDNUNCS AND CORNISH ADVISERS.

SIR,—A gentleman interested in one of the most promising mines in Cornwall, wishing to know something about it, wrote to a person who puts himself forward as an authority on mining, and calls himself a broker. We were shown this individual's reply in confidence, and therefore cannot make public any names. The sum total of this sage's reply was that, as this mine had never yet proved rich, it never would; and if the holder could get a certain price for his shares he should advise him to sell, the said price being some 10s. below their present actual value.

Now as a matter of fact this mine is on the verge of becoming a good paying concern, and if this individual had visited it and gone underground he would have seen that it was far from the worthless enterprise he was representing it to be. But if he is the party whom we suspect he is we can not only fathom the motives that prompted him to condemn unseen one of the most promising mines in Cornwall; but we agree with him that "the impossible sometimes happens." In his case, however, it can never happen, for not only is he no miner, but from what we remember of his bulk, as compared with the size of his office, he could no more scramble through a level 100 fms. from surface than he could put a value on a lode if he saw one. If any readers of the *Mining Journal* require a sound and reliable opinion respecting any of our Cornish mines they will find it more to their advantage to go to a first-class mining engineer than to put themselves in the hands or take the opinion of a Cornish broker who may never have been underground in his life, and whose interest it may be to bring sellers or buyers into the market.

Gracechurch-street, Aug. 2.

ENDEAN AND CO.

SALES OF SHARES BY AUCTION

SIR,—For the information of readers of the *Mining Journal*, who are mostly shareholders in mines, we wish, without occupying too much of your space, to caution them against being frightened out of their shares by the ridiculous prices they are said to have fetched at certain auction sales. We have been inundated with letters from timid shareholders, because shares in a mine in which they are interested are said to have been sold for 1s. 6d. per share. Now, as a matter of fact, we have bought hundreds of these shares during the past three months, in the market and from other sources, at prices ranging from 25s. to 35s.; whilst on the very day this eighteenpenny lot was supposed to have been sold, we refused an offer from a dealer in the market of 15s. per share for the same shares.

Like most other people, we once believed these share auctions were really *bona fide*, and tested them on one occasion by buying 30 shares in the Tamar Mine, which were run up to 35s. per share against us; but the following day they were quoted in the papers as having fetched only 15s. The usual time having elapsed, we pressed for delivery. All kinds of excuses were made, and it was nearly three months after we purchased them before we obtained a transfer. Knowing the transferer personally, we asked him whether he had any more shares for sale, as we had bought some which he held. To our surprise, he informed us that he had not sold any; on explaining how we bought them at auction, his reply was, "Oh! I have not sold them, but only lent them for three months at 1s. per share." Since this episode, we have allowed the so-called auction sales to offer Tamar shares as often as they please, but have refrained from bidding; and when a shareholder tells us he saw they were sold somewhere by auction for a song, we relate the above incident, which we hope may open the eyes of anyone contemplating a deal in shares at auction. We could furnish a few other interesting facts as to how the "sellers" by auction have fared by giving a few extracts from letters we have received on the subject; but having already occupied too much of your valuable space, we will defer doing so till some future occasion.—*Gracechurch-street, Aug. 2.* ENDEAN AND CO.

MINING NOTES AND RECOMMENDATIONS.

British mines, though not returning quite such large profits as the foreign mines, compare favourably with them when invested capital is taken into account. The capital of active British dividend mines is estimated at 1,033,625*l.*, and that of the foreign, as shown in my last letter, at 9,656,000*l.* These amounts do not represent the whole of the mines classed as dividend properties; the former approximated 1,400,000*l.* and the latter 13,000,000*l.* In both divisions there are many mines with dividends in abeyance. The great competition which our free trade induces keeps mining at home in a semi-stagnant state. I am not polemically disposed on this, one of our many national idiosyncrasies, but the indisputable glare out in all the awkwardness of continual depression. There is not that encouragement held out for the investor in home mines which there should be; politically the fates are against him, and in a sense that means everything. The enormous increase of capital in foreign mines does not foreshadow any easement of apprehensions touching future prospects.

The capitalist in foreign mines is to be congratulated on his profits; at the same time it cannot but be deplored that home industries suffer in consequence. There has been a rush of mining capital abroad of late years, with most unenviable results in many cases; but the increase is great. I may be judging from wrong premises, for I am looking only at the capital in dividend mines, which shows an increase in foreign mines over those of 1876 of 366 per cent., while in British mines it is a little more than 15 per cent. I have not sufficient data at hand to measure the gross increase of capital in both classes—the dividend and non-dividend. There is no doubt but much sympathy would be found with the figures above given. It is but natural that mining capital will flow out of the country while energies are crippled at home; but withal there remains a firm faith and good support made for home mines, and, what is more, there are splendid returns made.

When we look back over the past seven years the average dividends paid are better than those of the foreign mines, that is to say, on capital sunk: 1876, 11 per cent.; 1877, 15½ per cent.; 1878, 11 per cent.; 1879, 18 per cent.; 1880, 18½ per cent.; 1881, 15½ per cent.; 1882, 15½ per cent., or over the whole period 16 per cent., against 14½ per cent. in the foreign mines on original outlay. Taking the mines individually there are some which have in one year paid over 150 per cent. The profits in home mines are of a giant character, and some of them seem almost incredible; but we must believe facts. Since establishment the following mines have paid dividends at the given rates:—

	Capital.	Dividends.	Per cent.
Dolcoath.....	£45,252	£574,855	1,270
East Pool.....	3,120	207,068	6,636
Great Laxey.....	60,000	432,000	720
Green Hurth.....	1,900	26,240	1,381
Mellanear.....	20,000	19,250	100
Minera.....	45,000	615,910	1,368
Phoenix and West Phoenix.....	72,150	183,610	254
Roman Gravel.....	90,000	111,900	124
South Condurrow.....	38,421	58,606	152
Van.....	63,750	376,125	690
West Basset.....	40,500	171,100	422
South Caradon.....	640	385,000	60,156

Fable itself could hardly invent such results as obtained from South Caradon. The original capital being 640*l.* only, and dividends on this amount of 385,000*l.* were paid during 40 years' working, be-

sides 90,000*l.* in dues, and the necessary expenses for explorations and machinery. It has always been regarded as the richest copper mine in England. Up to May last it was worked on the Cost-book System, but was recently converted into a Limited Company, having a working balance of 30,000*l.* The mine is well equipped with the best machinery, valued by Capt. Rich at 40,000*l.* The acquisition of the Foredown sett by this company has greatly enhanced the value of the mine. There are six undeveloped lodes passing through this section, which is regarded by mining experts as of great promise.

The happy-go-lucky style of working the mine has passed away. There is ample capital provided for opening new ground and explorations in the old mine. The returns will undoubtedly improve under the new management, already there are signs of it; the last sale, on July 12, was 150, and the sale for the middle of this month, it is expected, will be 190 tons, besides leaving a month's broken ore underground. Economy is being exercised in the saving of fuel, time, and labour; the promising points are being pushed forward, so that altogether there are bright prospects in store for the shareholders. The directors are known to be smart business men, and every official competent and reliable, so that the fullest confidence may be placed in this grand property and the management. E. R. GABBOTT.

WEST PATELEY LEAD MINES.

SIR,—I am in receipt of the directors' report, with certain special resolutions, which seem to have received the unanimous support of the shareholders. It appears that the object in view is to acquire the adjoining East Grassington Mine, and the capital raised in a manner hitherto untried, embodying as nearly as possible the obvious advantages of Limited Liability with those of the Cost-book System—by the issue of shares limited to 2s. 6d. each, carrying a preferential dividend of 10 per cent. per annum. For years past I have held shares in different mines, and been associated with their financial administration; but it has never fallen within my experience to be connected with a company whose directors evince such a keen desire to protect and promote the interests of their shareholders. In so doing they may be equally serving their own individual interests; but it is a far-seeing policy not only to securing an apparently valuable mine upon terms rarely heard of, but enable their shareholders upon easy yet most favourable conditions to fully participate therein.

As an outside shareholder, I think we are greatly indebted to the committee and the directors for having matured a scheme, the development of which may return to the shareholders their outlay in the West Pateley Mine at a nominal cost per share. As shareholders we should not forget that at one time the discoveries in this mine were so valuable that, upon inspecting agents' reports, the shares were eagerly bought at high prices; and, if the manager's testimony as to the value of East Grassington Mine is to be relied upon, there cannot be a doubt that equally satisfactory results will there be realised, and, it may be hoped, more permanent in character. To my mind, there can be no doubt these preference shares will be readily taken up by the shareholders, as I can scarcely imagine they will allow such an opportunity to escape them of securing a 10 per cent. preference share in a property fully equipped with ample machinery, and every appliance to bring it into a dividend-paying condition.—*August 1.* SHAREHOLDER.

TANKERVILLE GREAT CONSOLS.

SIR,—Great credit is due to Mr. Peter Watson, the managing director, for his exertions to get the royalty reduced, although the landlords will not concede so much as the justice of the case demands. But the practical question at present is to make the returns equal the expenditure of development at the present price of lead ore. Capt. Waters' remarks point to very encouraging indications of early and important improvement at all the mines; but further outlay is necessary to realise his expectations. To pay the debit balance and provide for this expenditure the shareholders are required to subscribe for the remainder of the preference shares, of which I presume the directors will take their proportion. It is satisfactory to find the Chairman at the meeting last Wednesday assuring the shareholders that the expenditure was being kept down as much as possible, and the money subscribed would be well spent on the development of the mine.

A practical application of these remarks would be for him and his co-directors to follow the example of the directors of another company in the St. Agnes district, who held their meeting on the same day. A shareholder at that meeting remarked that "if there was one undertaking more than another which called for the services of a wise and honourable committee it was a progressive mine. If they wanted to swamp the concern before its wings were well spread for the dividend harbour, the way would be to elect some half a dozen directors, and pay them about 1000*l.* a year. He advised them never to have anything to do with a concern in which heavy director's fees were paid." Considering the present position of the Tankerville Company, and that since the commencement in September, 1882, the total expenditure has been about 60,000*l.*, including directors' fees 1840*l.*, I think it reasonable to suspend the fees and curtail the other heavy management expenses, relying upon the ultimate success of the company as a reward for services necessary till that time arrives.—*Kings Norton, Aug. 1.* J. W. H.

WEST CARADON GROUP OF MINES.

SIR,—May I ask the indulgence of a little space in the *Mining Journal* for a few particulars about the three mines forming the above group? They may be interesting to those who happen to be shareholders in the mines.—West Caradon Mine: The company to re-work this mine was started in 1880, and its progress up to the present period has been most satisfactory, as the sales of ore (which are the best proof of the progress of a mine) will show. In 1881 the ore sold was 227 tons, realising 804*l.*; in 1882, 315 tons, 1720*l.*; and for this year, up to the present moment, 283 tons, 1770*l.*; and another sale will take place in September next. Since the formation of the company the calls have seldom exceeded 6d. per share four-monthly. No call was made between September 7, 1882, and May 29 of this year, when 6d. per share was called up. I do not know of another mine that has required such light calls and that has made such steady progress in the past. In regard to the future, there is every reason for the most favourable anticipations. During the past month, in driving a mid-way level between the adit and 17 fm. level, a good lode has been met with, producing ore of high quality. There is a considerable quantity of whole ground above the present workings in this lode, and the agent is disposed to think that the lode is also standing untouched to the east of the adit level; and, if it be, it will be a valuable addition to the prospects of the mine. Another important feature is the clearing up the 50 fm. cross-cut south, with the view to intersect Jopes' lode, which was very productive in South Caradon. This point will probably be proved in a few months. It will thus be seen that, whilst the present state of the mine is satisfactory, the prospects admit of the probability of important discoveries in the near future. The mine is worked 80 fms. below surface without pumping power, the only machinery required being an 18-in. steam-engine for the purpose of winding and crushing.

NEW WEST CARADON.—This company was also formed in 1880, and the sales of ore have been 150 tons. The object of the company was to drive the 38 fm. level (cross-cut south to intersect several of the West Caradon and South Caradon lodes (among them Jopes' and Clyma's), which are known to pass through the ground. It is supposed that the last-named lode has been met with in the cross-cut, and it is now being driven on west, and presents very encouraging features. The cross-cut is still going forward, and a little work is also being done on the old main lode, where the bargains are worth on the aggregate 2 tons of ore per fathom. The mine is most cheaply worked, no machinery being required. All the ore and stuff is hauled to surface by the West Caradon engine under an arrangement with that company. It will be seen that the 38 cross-cut is the main and important feature in the mine, and as it is 80 fms. from surface a discovery would be of the greater importance from the great height of backs there would be upon the lode, and as the cost of working is light a few tons of ore per month would more than suffice to meet the expenses of the mine. This is an adventure whose

progress should be, and is no doubt, carefully watched by those who know the district, for a good and lasting discovery in the mine would mean large and speedy profits.

WEST GONAMENA MINE.—This company was formed in January last. A shaft has been sunk 11 fathoms from surface, and a level driven about 40 fathoms; at this depth upon a lode which for almost the entire distance has presented the most encouraging features for making a deposit of ore not far below the present depth. The lode has been composed principally of peach, mundic, and black copper ore. If any value is to be attached to indications this mine is the most promising speculation in the whole district. The ground is easy for driving, the average price paid being about 3*l.* 5s. per fathom. The object of the company is to drive the level up to the cross-course, and then sink a permanent shaft to develop the lode in depth.

I think these few plain statements must prove that it would be difficult to point out three more promising adventures than these I have described.—*Gracechurch Buildings, July 31.* CARADON.

BEDFORD UNITED MINES.

SIR,—By your kindness I was enabled some time since to convey to a large circle of my friends, who are your constant readers, my opinion respecting this mine, and I beg the favour through the same medium of assuring them that the gradual development of the Bridge lode fully verifies the views and expectations I entertained and gave expression to. I inspected the mine yesterday, and was very pleased to observe that the same favourable channel of ground is continuous, which at the 62 on the Bridge lode is still easy for progress. The lode at the 62, both east and west has been productive for the whole distance of the levels, which are about 15 fathoms each side of the shaft, and the ores are of rich quality. In the 62 east a new feature is presented by the appearance of fluor-spar, with a large quantity of very fine quality yellow copper ore. This class of lodestuff is characteristic of the principal lodes of the district, more especially of the best productive mines, and is the most desirable product to be found under the rich oxides of copper which the backs of this lode are still yielding.

The present appearance of the lode at these points is very fine, and shows its strength and character; in fact, everything in connection with it augurs well for its future success, and I have no doubt of the immediate presence of very large bodies of ore. It has been asked when is the great course of ore in the 30 going to make down? My answer is that it is already doing so, and I am of opinion the whole of the ground from the 30, down to the 40, 62, and downward will be profitably taken away. The stoep which is in active work in the bottom of the 30, and now near the 40, is producing a mass of very fine ore of the same description as that passed through in the long shoot of the 30, and it will certainly go down to the 62. Some fine ore is also making its appearance in a winze eastward from the 40, considerably eastward of the 62. I see no reason why the samplings should not be maintained, and in a very short time be considerably augmented.—*Whitchurch, Aug. 1.* WM. PHILLIPS.

WHEAL COATES, AND ITS FUTURE.

SIR,—At the meeting on Tuesday a call of 1s. per share was authorised on an estimate of the expenditure for the ensuing 16 weeks, approved by Capt. Vivian, who was present. Capt. Vivian stated in reply to an enquiry that he expected the present pumping engine would be adequate for keeping the water until the cutting of the West Kitty lode, which he expected to reach in about six months. That on the cutting of that lode he anticipated an influx of water, which would involve the substitution of a larger engine and probably a month's delay in making the necessary changes. The fullest satisfaction with the prospects was expressed by several shareholders, two of whom had recently visited the mine, and it was suggested that when the West Kitty lode is reached any necessary call, even to the extent of 6s. per share, to provide the requisite pumping power, would readily be paid, which suggestion was most heartily endorsed by the meeting.

In view of these facts one is at a loss to understand a letter issued from Mr. Reynolds's office on the day of the meeting, of which the subjoined is a copy:—"Wheal Coates. Dear Sir,—Great unwillingness having been expressed to pay further calls herein notwithstanding the decidedly improved prospects of the mine, kindly say whether you desire to be relieved of your interest at a nominal price and state the figure.—Yours truly (signed), for John B. Reynolds, F. B."—Perhaps Mr. Reynolds will kindly explain and oblige.—*Great Winchester-street, Aug. 2.* M. R.

SOUTH KITTY (SAINT AGNES).

SIR,—The starting of South Kitty is looked forward to by the inhabitants of St. Agnes with deep interest, believing, as they do, that it will turn out a good and paying mine. A meeting was held in London on Thursday last. It was determined to prosecute this concern and make it a success. Great profits have been realised from the mines in this parish at shallow depths during the past 100 years or more. The late Mr. Donnorhorne, of St. Agnes, made large profits out of the shallow mines here—it is said 40,000*l.* in one year—about 100 years ago. He was High Sheriff for Cornwall once. The late Squire Tregay also had rich tin mines here, and realised large profits, principally from shallow mines—so much so, he remarked once, "He wished some of the parcels of tin lying on the floors in Old Polbreen Mines were piles of manure to fertilise his lands with." This mine is now being worked as New Kitty, with great and sanguine hopes of success.

All the lodes in this mine pass through South Kitty sett, where comparatively little has been done. I might go on multiplying instances of shallow mines in this parish being successful, and fill a volume on this subject; but, knowing full well that the limits of your space forbid be expatiating upon this subject, it must come on again at another time. South Kitty may be regarded as almost virgin ground. In olden times a few poor men sunk a shaft here a few fathoms to the water level, and discovered a lode which they stopped away so far as can be seen for several fathoms on each side of the shaft, thus proving they must have had a good lode for tin, the lode being from 2 to 3 ft. wide. About 20 years ago a local party sunk a shaft here about 20 fms., put out a cross-cut north and south, and intersected two tin lodes of great promise, and parcels of tin were sold, and all hands at this time who were interested in it were fully convinced they had a good mine. A small engine was put up, and operations pushed on to sink the shaft and cut other lodes; it was found, however, that the machinery was not of sufficient power to grapple and conquer the water, as they were nearing other lodes, and the progress was at once arrested. Negotiations were entered into with a fresh party for further capital, which afterwards fell through, and nothing has been done here from that time.

Mining at this time was very dull in this parish, and an opinion had long prevailed that our mines would not prove payable in depth. The riches from our mines at a comparatively shallow depth were gone to market, and the poor miners in the St. Agnes district, with a forlorn hope, were in a desponding state. Captain John Davies started the Wheal Kitty Mines, which, with others, had been very rich in former times, and the sinking of Wheal Kitty soon made her a rich mine again, and 40,000*l.* have been paid in dividends, thus proving that mine will pay in depth in St. Agnes. Also West Kitty saw what was going on in Wheal Kitty, and they, too, sunk their shafts, and pushed their levels through until they met with the rich and abundant courses of tin like they had in Wheal Kitty, and now West Kitty is one of the richest tin mines in Cornwall, and on Wednesday last a dividend of upwards of 3000*l.* was declared at the meeting of shareholders on the mine. Well done West Kitty, success to Mr. John B. Reynolds and his friends!

South Kitty is situated in the very midst of the three Kittys, having the New Kitty lodes traversing its sett, with the Wheal Kitty great cross-course passing through it, also other tin and copper lodes, the sett being very extensive. In the south part of the sett a large tin lode was laid open at depth of only 7 fathoms, and more than 300*l.* worth of tin returned and sold. Near this lode a large copper lode, at the same depth, has also been laid open; this was done 45 years

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The Steel Rail Trade is in a very depressed state, and the highest quoted rate for these rails is 47. 15s. net. Pig-iron is 39s. and 39s. 6d. for No. 3. Messrs. Connals' stock is 73,695 tons—a reduction of 81 tons upon last week. The shipment of pig-iron from the Tees for the month of July can now be estimated. A total is expected of 88,000 tons, 14,000 tons more than the corresponding month of last year, and a considerable decrease of the stocks in the stores and in the hands of makers is expected, and this has led to improved prices.

The masters have now the benefit of reduced wages and reduced railway rates, and most of them can secure a little profit at present rates. There is no end to transformations in trade. At the present time Cleveland iron stands better in the market than hematite. The latter most valuable ore, so highly prized formerly, has fallen very much in value. This has evidently been brought about by two causes—large importations of hematite from abroad, and the success of the basic process, by means of which Cleveland native ore is converted into excellent steel. At present it is very probable that there will be a larger production of Cleveland iron ore. The Steelworks at Consett—the largest plate-making works in the world—will shortly be producing a large quantity of steel plates, and another very large firm on the Tyne are, we believe, contemplating the introduction of steelworks at an early date.

The unfortunate strike of engineers on the Wear has already had a most injurious effect on trade in Sunderland. Marine engines cannot be got by the shipbuilders, and they will, therefore, curtail their operations. Some of them have, indeed, done this already, and have commenced to discharge hands. When this disastrous strike occurred all the Sunderland trades were prosperous and improving, but the tide of progress has been seriously checked by it, and unless some means can be found to bring about its termination the effect will be very serious. At present there appears to be no prospect of closing it. Mr. S. Story, M.P. for the Borough, a most enterprising commercial man, has assisted materially in bringing to an end former strikes there, and it is hoped that he may attempt to bring about a compromise between the parties in this case also.

The exhibition in the Tynemouth Aquarium was opened on Monday. It has been organised by Mr. John Black, of London. It is expected that it will prove a great attraction to the people in this district. The exhibition is not yet in perfect order, owing to persons not sending their exhibits until the last moment; but in the course of a few days it is expected to be thoroughly arranged. The suitability of this noble building for exhibition purposes was fully proved at the great show of maritime appliances, &c., which was held last year. The exhibition now opened is of an entirely different character as compared with that of last year, and it is of such a varied character as to afford attractions to all classes of visitors. There is a large exhibition of pictures, sculptures, &c., in the art department. There is a commercial section, which is more in the nature of a bazaar, where there is an extensive collection of articles, including fine specimens of stained glass. Flower painting on glass is also shown. In the Aquarium Hall are placed the machinery in motion, and working models where potters are at work. Glass blowing and engineering is also carried out by experienced workmen. Also the manufacture of pottery, china, terra cotta, &c. Looms, &c., are also at work, and a great variety of manufactures are carried out. Of course, we are more concerned in the models of machinery, new inventions, &c., of which there is a great variety, and we expect to give a more detailed account of them in our next letter.

TRADE IN SOUTH WALES.

Aug. 2.—The temporary lull in the Coal Trade is passing away, and merchants and shippers have been pushing forward their orders this week in anticipation of the stoppage of the pits next week, owing to the Eisteddfod. But double-screened steam coal at Cardiff is quoted at 11s. 9d., while second and third qualities stand at 11s. and 10s. 6d.; colliery-screened—first, 11s. 6d.; second, 11s.; third, 10s. 6d. The amount sent away from Cardiff was 127,531 tons foreign and 23,927 coastwise; Newport, 25,636 tons foreign and 21,947 coastwise; Swansea, 23,683 tons foreign and 2762 coastwise. Small steam coal is quoted at 6s.

The Powell Duffryn Company have won the celebrated Upper Four feet coal at their new sinking at Lower Duffryn, Aberdare Valley. The new pit, which is to be called the George Pit, after Sir George Elliot, will enable the company to work several hundred acres of the above valuable seam that hitherto have been quite untouched, and thus enable them to keep up an undiminished supply of their well-known quality.

There is now every prospect of the new pits which were partly sunk to the steam coal at Gelligroes, near Pontllanfraith, some eight or ten years ago, being started again very shortly, as it is expected that the Newport Abercarn Steam Coal Company, which is working the Celynen Colliery at Abercarn so successfully, will take it. During the past week Mr. T. Beynon (ex-Mayor of Newport), Colonel Lyne, with Mr. Phineas James (estate agent to the Llanarth and Llanover Estates) visited the place and examined the whole surroundings. It appears very probable that this will become a large and very important colliery district, as there is every facility for railway communication to the ports of Swansea, Cardiff, Newport, and Birkenhead, as the Great Western and London and North Western Railways extend to here.

The make of iron in South Wales is giving way to steel everywhere, but the prices for the latter are not encouraging. Only one parcel of 388 tons was sent away from Cardiff last week, while from Newport several parcels were shipped, as follows:—Montreal, 2600 tons; Gelle, 1250; Rosario, 700; Oporto, 50. The iron ore trade remains flat. Newport received 15,100 tons from Bilbao last week, and 2030 from other places; Cardiff received 10,833 tons from Bilbao, and 755 from other places. Prices are quoted at from 13s. 6d. to 14s. per ton.

It is rumoured that a Swansea tin-plate manufacturer has purchased, or is about to purchase, the College Ironworks, Llandaff, and contemplates re-starting them very shortly. Preparations for a start will be commenced shortly, and as soon as the necessary repairs have been accomplished the works will again be in full swing. Mr. Williams, the late owner, has paid a visit to the works, and made a thorough inspection of each department. When it became known that the works had changed hands, and were again to be re-started, the inhabitants were delighted, for when the works stopped, as well as the engineering works of Messrs. de Bergue and Co., quite a gloom was cast over the neighbourhood, and many were obliged to seek a livelihood elsewhere.

The Tin-Plate Works are in active operation, and prices are well maintained. Best brands fetch 17s. per box; good cokes, from 16s. 3d. to 16s. 6d.; common, 15s. 9d. to 16s. Best charcoal-made stand at 19s.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Aug. 2.—Science has been busy in North Wales during the past week. The Geologists' Association of London have been spending a week in the Bangor district. They have visited Snowdon, with its Llandillo slates and its capping of Bala ash and limestone. They have visited the slate quarries, with their green, blue, and purple slates, and they have given attention to those old-looking gneissic rocks, so like in the shape of the hills and of the arrangement of the particles to the gneissic rocks of Norway and Sweden, which come up along the Carnarvon shore of the Menai Straits, and of which Twthill at Carnarvon may be taken as a sample. In due time we shall doubtless have a full scientific account of the excursions.

The Caradoc Field Club have been spending two days very pleasantly around Bala, led by Mr. Ruddy, of Llandelfel. On the second day they crossed the Berwyn Mountains to visit the works of the Liverpool Corporation for their new water supply. After they had been led over the general works they paid a visit to the extensive quarry which has been opened for the supply of stone for the masonry dam which is being built across the valley. Mr. D. C. Davies, under whose superintendence the quarry has been opened, pointed out the relation of the beds of the quarry to the Bala or Caradoc strata above and the Llandillo below, and some of the members obtained a few characteristic fossils.

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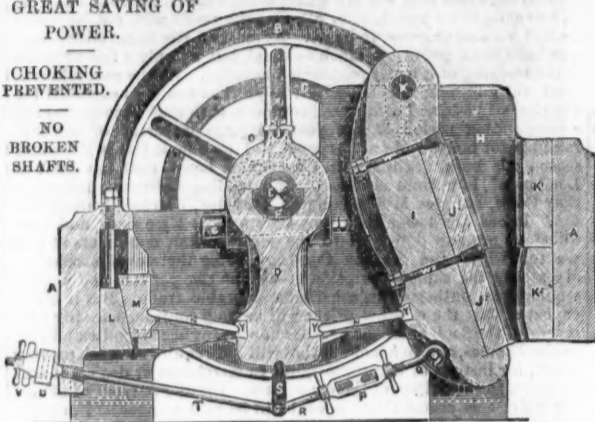


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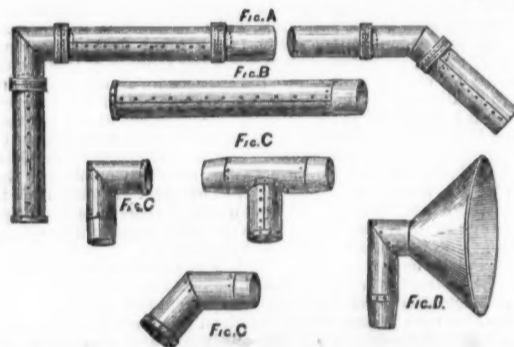
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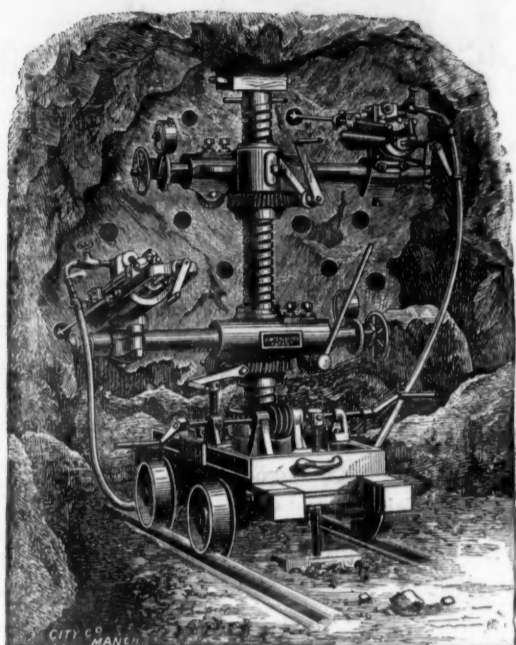
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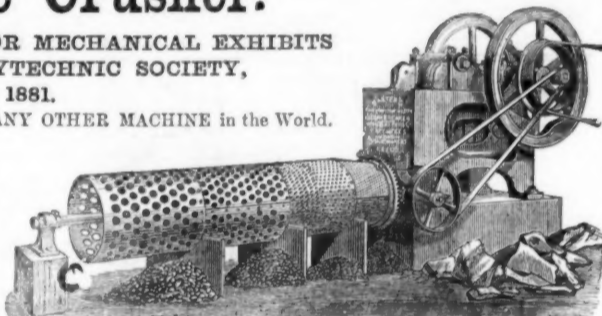
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At Paris iron merchants have been complaining of late of a great want of confidence among consumers. Forge masters have been offering to make deliveries at 6l. 16s. per ton free at Paris; some transactions are stated to have been concluded at even lower rates. A slight improvement was reported recently in the Nord, but the situation has since changed rather for the worse. It was announced recently that the rolling-mills were about to reduce their production, but nothing at present has been determined on. Much satisfaction has been expressed in French industrial circles at the progress made with the discussion of conventions concluded by the French Minister of Public Works with the six great French railway companies. These conventions will, it is expected, have the effect of causing considerable orders for plant to be given out and these orders will be extremely welcome just now. The imports of iron minerals into France in the first six months of this year are returned at 800,918 tons, as compared with 706,109 tons in the corresponding period of 1882, and 611,850 tons in the corresponding period of 1881. The imports for the first half of this year comprised 101,675 tons from Belgium, 231,105 tons from Germany, 255,163 tons from Spain, 37,418 tons from Italy, and 154,946 tons from Algeria. The exports of iron minerals from France in the first half of this year amounted to 52,540 tons, as compared with 57,275 tons in the corresponding period of 1882, and 30,558 tons in the corresponding period of 1881. In the German iron trade there has been no material improvement at present in the situation. Transactions upon the German markets are generally, however, of comparatively little importance in July, as the works are accustomed to devote themselves to stocking in that month. At the same time, the autumn does not appear likely to fully realise the hopes which had been at one time conceived respecting it. The production of pig in the Dortmund district in the second quarter of this year amounted to 265,739 tons, as compared with 246,897 tons in the corresponding period of 1882; the production of iron amounted to 140,392 tons, as compared with 138,991 tons; and the production of steel amounted to 253,978 tons, as compared with 244,119 tons.

The Belgian Iron Trade has presented scarcely so cheerful an aspect of late. The hopes which had been formed as to a decided revival in affairs have been somewhat checked; but, although the improvement established may be somewhat slow and slight, a change for the better has nevertheless taken place. Pig has been firm, especially in the Charleroi basin, where hard pig has made 2l. 0s. 10d. per ton, and mixed pig 1l. 18s. 4d. per ton. English pig has been well maintained, at 2l. 6s. 6d. per ton. Athus-Halanzy pig has remained at 2l. per ton. All the rolling-mills are not assured work for any lengthened period in advance, although orders reach them from day to day, and are sufficient to impart a favourable tone to affairs. Upon the whole, the large establishments have work assured to them, and to this fact may be attributed the position of the Belgian iron trade. No. 1 iron has been well supported in the Charleroi district, at 5l. per ton; contracts have even been concluded at 5l. 2s. per ton. The difference of 8s. per ton per number for iron has been well supported. Plates have brought from 6l. 12s. to 6l. 16s. per ton. Upon the whole, affairs have exhibited a good tendency, although no decided advance can be reported. Some alarm has been excited in Germany with reference to negotiations reported to have been entered into between the administration of the Belgian State Railways and the administration of lines in Alsace and Lorraine for the establishment of a direct Italo-Belgian tariff, via the St. Gothard. At present it costs little less than 1l. 8s. per ton to move a ton of iron from Dortmund to Milan; but if the proposed changes are carried out the rate charged for the conveyance of Belgian iron from Charleroi to Milan would be reduced to 1l. 6s. 2d. per ton.

An advance in coal is anticipated in Belgium this month. A commercial association has been projected among the coalowners of the province of Liège, and appears likely to be regularly constituted. It is stated that one of the collieries in the Seraing district will not be worked on Mondays for some little time. The number of coal and coke trucks which passed over the Belgian State Railways in the week ending July 22 this year was 16,488, as compared with 15,413 in the corresponding week of 1882. In the French coal trade transactions appear to have been limited to a large extent to current requirements. Deliveries have been further rendered inconsiderable in consequence of a suspension in negotiations at various points. A recent French writer estimates the present production of coal from the soil of France at about 19,000,000 tons per annum. The consumption is, however, at least 29,000,000 tons per annum, so that at least 10,000,000 tons of coal are annually imported into France from abroad. Coal has been fairly well maintained in Germany, and in some quarters an advance is anticipated. Coke has, however, been depressed in consequence of the doubtful tone of the German iron trade. One circumstance is reported which appears to indicate that a more hopeful future is in store for the German coal trade.

Registration of New Companies.

The following joint-stock companies have been duly registered:—
SPITZKOP (LYDENBURG) GOLD MINING COMPANY (Limited).—Capital 200,000*l.*, in shares of 1*l.*. To purchase or otherwise acquire and work any lands, hereditaments, mines or lodes, veins, diggings, deposits, mining rights, &c., in Africa or elsewhere, and in particular to purchase the Spitzkop farm or estate, situated at Lydenburg, in the South African Republic, and the mining concession to work gold reefs and other mines, minerals, and precious stones in said lands, and generally to carry on the businesses of miners, metallurgists, millmen, &c. The subscribers (who take one share each) are—A. H. Dixon, 29, Bedford-place, C.E.; W. J. Hurst, Peckham, clerk; R. Kurten, 116, Crawford street, accountant; R. G. Upjohn, Lincoln's-inn, clerk; W. Robinson, Ealing, accountant; L. E. Chagniat, Brixton, manufacturer; J. M. Roberts, Prince of Wales-road, gentleman. The first board is made up of the following: H. Franck, O. Rothschild, and J. O. Schuler. Remuneration 1000*l.* per annum, to be divided. The qualification for a directorship is 250 shares.

THE CYCLISTS' ACCIDENT ASSURANCE CORPORATION (Limited).—Capital 100,000*l.*, in shares of 1*l.*. A special accident assurance business. The subscribers are—J. A. Clarke, 52, Wool Exchange, 25; F. Holman, 7, Wa ford-road, 5; H. W. Edwards, Bow, 5; A. Pe ser Camden Town, 10; J. Rivolta, 10, Melrose-terrace, 5; T. Hubert, 6, Coleman-street, 25. A. T. Pidduck, 94, Kinder-street 10.

CAVENDISH HOUSE (Limited).—Capital 35,000*l.*, in shares of 100*l.*. To acquire and carry on in Cheltenham an established business of manufacturers of carpets, rugs, furniture, upholstery, &c. The subscribers are—G. E. Hewett, Charlton Kings, 200; A. C. Nicholls, Cheltenham, 45; C. Williams, Cheltenham, 45; J. C. Cooper, Cheltenham, 45; M. A. Hewett, Twickenham, 5; S. Hewett, Twickenham, 5; S. Pearce, Plymouth, 5.

THE PATENT OIL EXTRACTING COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.*. To acquire and carry on at Stoneferry, Hull, the business of Ritchie and Hart. The subscribers (who take one share each) are—W. B. Ritchie, Belfast; E. B. Hart, Belfast; A. W. MacIlwaine, Stoneferry; T. H. Ritchie, Belfast; J. H. MacIlwaine, Belfast; S. Courtney, Belfast; W. E. Churchill, Belfast.

GAWTON COMPANY (Limited).—Capital 35,000*l.*, in shares of 2*l.* 10*s.* To acquire certain mines and premises known as the Gawton Mines, situated in Devonshire, together with all plant, buildings, and machinery belonging thereto, and any other mines, lands, offices, buildings, licenses, &c., in said county or elsewhere, for the purpose of carrying on the various operations connected with mining. The subscribers (who take one share each) are—H. W. Wheeler, 51, Threadneedle-street, gentleman; G. Batters, 4, Austin Friars, shareholder; G. Heap, 54, Beresford-road, gentleman; E. F. Colmer, 22, Austin Friars, accountant; A. Johnson, 2, Crown-court, stockbroker; W. C. Lester, 19, Connaught-street, gentleman; J. Robinson, 47, Queen's-road, gentleman. The number of directors must not be less than three nor exceed seven; qualification 100 shares. The first directors shall be elected by the subscribers, the remuneration of the board being fixed by the company in general meeting.

THE LYDBROOK COLLIERY COMPANY (Limited).—Capital 15,000*l.*, in shares of 10*l.*. The acquiring by purchase or otherwise of the Lydbrook Deep Level, the Pluds, and the Birch Grove Collieries respectively, which are situated in the Forest of Dean, Gloucestershire, and the buildings, lands, rights, licenses, and privileges held in connection therewith under the Crown or otherwise, for the purpose of carrying on the trades of coal and ironmasters and ironfounders, &c. The subscribers (who take one share each) are—R. Thomas, Lydbrook, tin-plate manufacturer; S. M. Thomas, Lydbrook, chemical manufacturer; M. Ratty, 58, Fonthill-road, bookkeeper; R. B. Thomas, Lydbrook, manager; E. Tamplin, Lydbrook, grocer; J. Hale, Lydbrook, manager; J. Grimblett, Lydbrook, bookkeeper.

THE GENERAL MARINE SALVAGE COMPANY (Limited).—Capital 100,000*l.*, in shares of 10*l.*. The business of general contractors, marine salvors, shipping agents, wharfingers, &c. The subscribers (who take one share each) are—H. J. Kelly, Teddington; G. Rayner, 41, Threadneedle-street; P. Windham, 72, Gracechurch-street; G. M. F. Molesworth, Northdown Hall; D. N. Welch, Virginia Water; H. Keppel, Wingfield; G. L. Stephenson, 6, Draper's Gardens.

THE BUTTERINE COMPANY (Limited).—Capital 50,000*l.*, in shares of 2*l.*. The manufacture and sale of butterine, oleine, or oleomargarine, or any article of trade connected therewith. The subscribers (who take 50 shares each) are—N. Price, Hornsey; J. H. Boyce, Hammersmith; J. T. Hazeldine, Queen's Crescent; T. H. Smellie, 35, Gracechurch-street; G. J. Pearce, Forest-gate; C. Reade, Crayford; J. E. Baugh, 117, Great Russell-street.

THE MOTOR COMPANY (Limited).—Capital 75,000*l.*, in shares of 1*l.*. The business of sewing or stitching machine manufacturers, merchants, and agents in connection with certain patents. The subscribers (who take oneshare each) are—W. Morgan, 70, Stoke Newington-road; W. W. Bentley, Ladywell; J. M. Kennett, Clapton; J. Chisholm, 53, Surrey-square; F. R. Bigg, 11, Clement's-lane; B. Glover, 76, Avendale-square; W. R. White, 77, Church-street.

THE WEST OF ENGLAND SLATE QUARRY COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.*. To acquire, develop, and work certain properties, consisting of 17 acres, situated in the parishes of Diptford and South Brent, Devonshire. The subscribers are—E. L. Middleton, Plymouth, 1000; E. Pearson, Chingford, 500; C. Singleton, 28, St. Swithin's-lane, 25; R. Poole, Preston, 5; A. S. Leech, Manchester, 5; T. Walker, Manchester, 5; G. Hampson, Manchester, 5.

J. H. STUBBS AND COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.*. The general business of a mercantile agency and trade protection society. The subscribers (who take one share each) are—M. McGregor, 5, Moorgate-street; T. Willson, Hampstead; J. H. Stubbs, 37, King William-street; J. W. Peyton, 156, Cheapside; C. Robinson, 35, King William-street; W. B. Dow, Old Charlton; W. Salmon, Rotherhithe.

THE LOMBARD ASSOCIATION (Limited).—Capital 20,000*l.*, in shares of 5*l.* and 10*l.*. To promote or establish and work financial, mining, engineering, manufacturing, commercial, and industrial companies or syndicates, whether in the United Kingdom or elsewhere. The subscribers (who take one share each) are—B. E. de Colenberg, West Kensington; R. Austin, 43, Lombard-street; A. Stein, 17, Great Winchester-street; J. Wright, Highbate-road; E. Charles, 46, Huntingdon-street; W. G. Payne, Champion Hill; A. McEwen, 533, Old Kent-road.

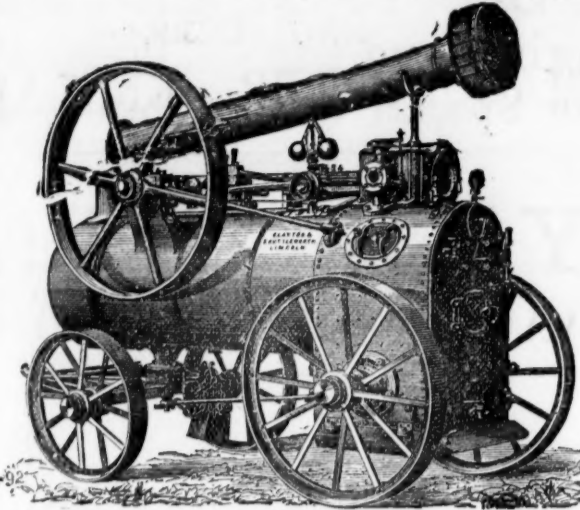
THE PALURITA COMPANY (Limited).—Capital 30,000*l.*, in shares of 5*l.*. To adopt and carry into effect a certain agreement to be made between the Pacific Coast Mining Company (Limited) of the one part, and this company of the other. To purchase or otherwise acquire and work any hereditaments and possessions containing gold and silver mines, minerals, and mining rights in the Republic of Nicaragua, Central America. To mine, work, and generally utilise the products, and to reduce into bullion ores, metals, or minerals, selling and disposing of same, and generally to carry on all operations connected with gold and other mining. The subscribers (who take one share each) are—H. B. Jackson, Manchester, gentleman; H. G. Tippet, Liverpool, merchant; T. H. E. Gill, Liverpool, solicitor; A. Connop, Liverpool, miner; T. H. Tippet, Liverpool, clerk; W. Slater, Liverpool, merchant; W. H. Alexander, Liverpool, cotton broker. The following are the first directors—H. B. Jackson, H. G. Tippet, T. H. E. Gill, and A. Connop. Qualifications shares to the value of 250*l.*, but any director may act before acquiring his qualification shares.

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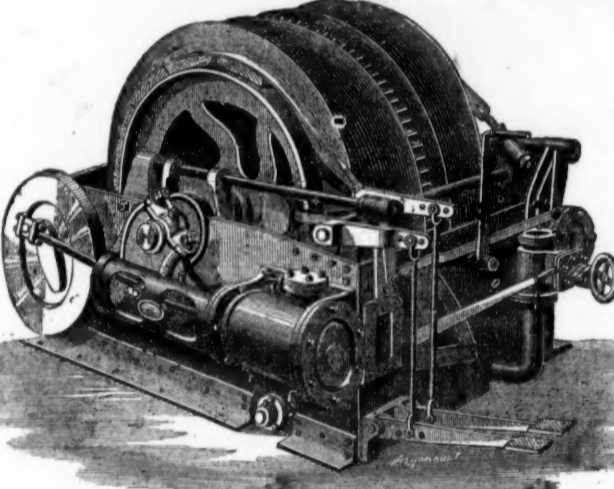
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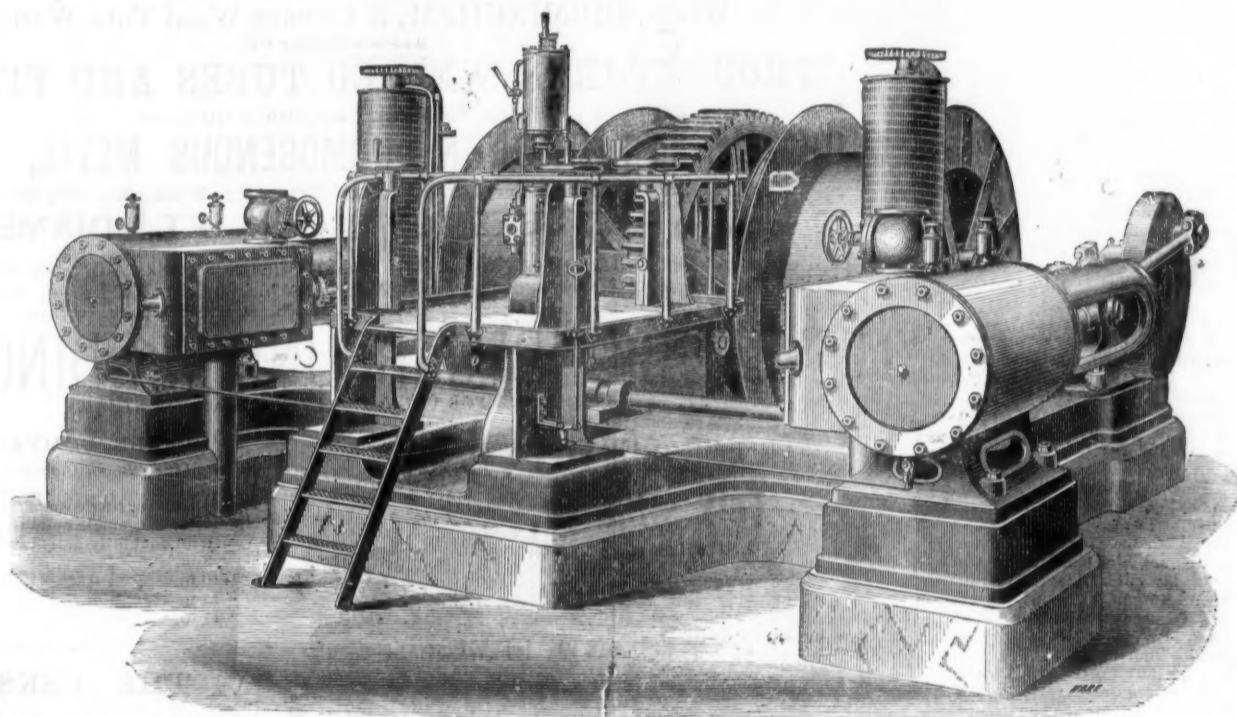
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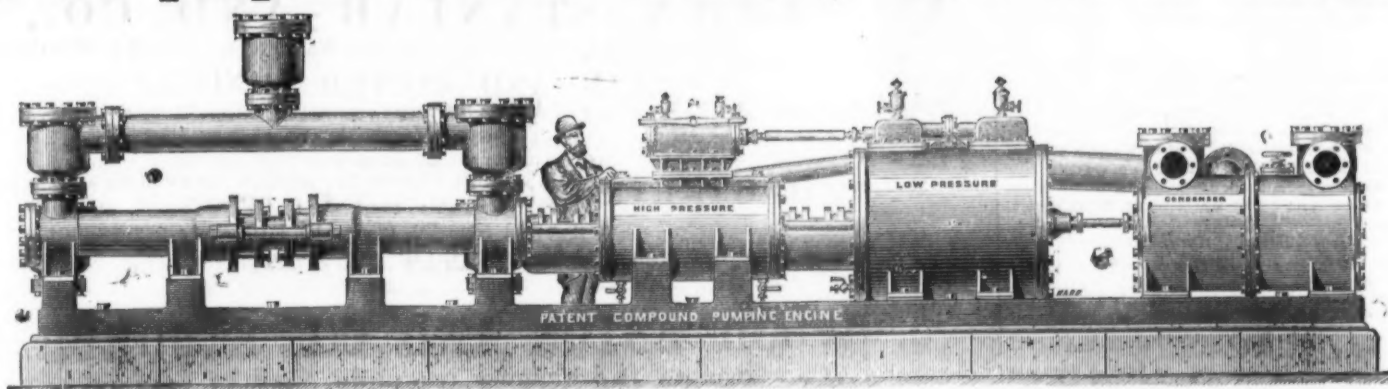
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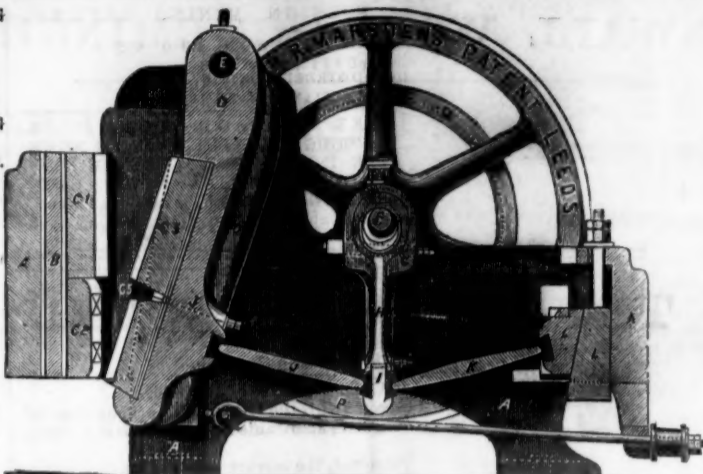
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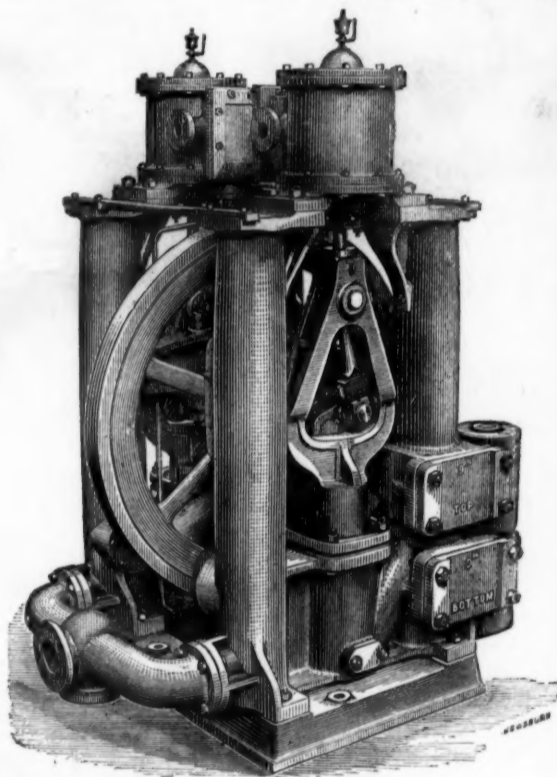
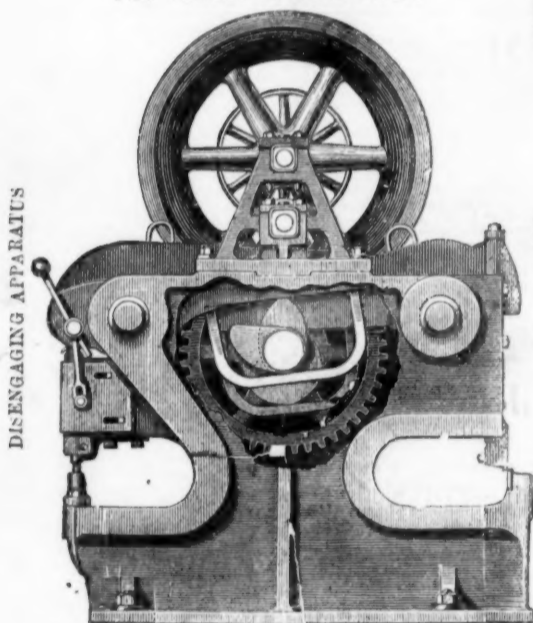
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